

537736.trn

=> search combination or combinator?

167630 COMBINATION

988 COMBINATOR?

L1 168549 COMBINATION OR COMBINATOR?

=> s l1(2a)chemistry

337636 CHEMISTRY

L2 29 L1(2A)CHEMISTRY

=> d bib

L2 ANSWER 1 OF 29 MEDLINE

AN 96368010 MEDLINE

TI Characterization of the complexity of small-molecule libraries of electrospray ionization mass spectrometry.

AU Dunayevskiy Y; Vouros P; Carell T; Wintner E A; Rebek J Jr

CS Department of Chemistry, Barnett Institute, Northeastern University, Boston, Massachusetts 02115, USA.

SO ANALYTICAL CHEMISTRY, (1995 Sep 1) 67 (17) 2906-15.

Journal code: 4NR. ISSN: 0003-2700.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

EM 9611

=> d all

L2 ANSWER 1 OF 29 MEDLINE

AN 96368010 MEDLINE

TI Characterization of the complexity of small-molecule libraries of electrospray ionization mass spectrometry.

AU Dunayevskiy Y; Vouros P; Carell T; Wintner E A; Rebek J Jr

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Journal code: 4NR. ISSN: 0003-2700.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

EM 9611

AB The growing interest in ***combinatorial*** ***chemistry*** has led us to explore new analytical methods for the analysis of complex molecular libraries. Because an investigation of large mixtures with 10(4)-10(5) different chemical entities was not realistic, an alternative approach was pursued that included the analysis of small representative sublibraries using positive and negative ion electrospray mass spectrometry. The detailed analysis of these model mixtures, containing up to 55 components, allowed us to obtain important information about the composition of a library with considerable complexity. The results were used to improve the synthetic procedure in order to provide the maximum yield of expected library components. The applicability of mass spectrometry

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SRNT

to the analysis of complex matrices and the usefulness of the technique for screening synthesized combinatorial libraries to probe their expected diversity and complexity have been demonstrated.

CT Amino Acid Sequence
*Dipeptides: CH, chemistry
Molecular Sequence Data
Spectrum Analysis, Mass
CN 0 (Dipeptides)

=> e review/dt

E1	231	RETRACTED PUBLICATION/DT
E2	198	RETRACTION OF PUBLICATION/DT
E3	517153	--> REVIEW/DT
E4	34742	REVIEW ACADEMIC/DT
E5	12627	REVIEW LITERATURE/DT
E6	4854	REVIEW MULTICASE/DT
E7	25959	REVIEW OF REPORTED CASES/DT
E8	268783	REVIEW TUTORIAL/DT
E9	13	SCIENTIFIC INTEGRITY REVIEW/DT
E10	392	TECHNICAL REPORT/DT
E11	250	TWIN STUDY/DT

**** END OF FIELD ****

=> s e3-8

	517153	REVIEW/DT
	34742	"REVIEW ACADEMIC"/DT
	12627	"REVIEW LITERATURE"/DT
	4854	"REVIEW MULTICASE"/DT
	25959	"REVIEW OF REPORTED CASES"/DT
	268783	"REVIEW TUTORIAL"/DT
L3	517189	(REVIEW/DT OR "REVIEW ACADEMIC"/DT OR "REVIEW LITERATURE"/DT OR "REVIEW MULTICASE"/DT OR "REVIEW OF REPORTED CASES"/DT OR "REVIEW TUTORIAL"/DT)

=> d his

(FILE 'HOME' ENTERED AT 21:45:29 ON 10 OCT 96)

FILE 'MEDLINE' ENTERED AT 21:45:32 ON 10 OCT 96

L1	168549	SEARCH COMBINATION OR COMBINATOR?
L2	29	S L1(2A)CHEMISTRY
		E REVIEW/DT
L3	517189	S E3-8

=> s l3 and l2

L4	5	L3 AND L2
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=> d 1-5 all

L4	ANSWER 1 OF 5	MEDLINE
AN	96166348	MEDLINE
TI	***Combinatorial***	***chemistry*** in the discovery and development of drugs.

AU Doyle P M
 CS Department of Medic~~al~~ Chemistry, Wellcome Res~~ear~~ch Laboratories,
 Beckenham, Kent, UK.
 SO JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, (1995 Dec) 64 (4)
 317-24. Ref: 70
 Journal code: AL8. ISSN: 0268-2575.
 CY ENGLAND: United Kingdom
 DT Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 *** (REVIEW, TUTORIAL) ***
 LA English
 FS Priority Journals; B
 EM 9605
 CT Amino Acid Sequence
 Automation
 Databases, Factual
 *Drug Design
 Molecular Sequence Data
 Oligopeptides: CH, chemistry
 *Oligopeptides: CS, chemical synthesis
 CN 0 (Oligopeptides)

L4 ANSWER 2 OF 5 MEDLINE
 AN 96102839 MEDLINE
 TI Solid-phase ***combinatorial*** ***chemistry*** and novel
 tagging methods for identifying leads.
 AU Chabala J C
 CS Phamacopeia Inc, Princeton, USA.
 SO CURRENT OPINION IN BIOTECHNOLOGY, (1995 Dec) 6 (6) 632-9. Ref: 24
 Journal code: A92. ISSN: 0958-1669.
 CY ENGLAND: United Kingdom
 DT Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 *** (REVIEW, TUTORIAL) ***
 LA English
 FS Priority Journals
 EM 9604
 AB Encoded combinatorial chemical synthesis on solid phase is a new
 paradigm in organic chemistry that provides chemists with powers
 similar to those enjoyed by molecular biologists. Encoded chemical
 libraries will have a profound impact on all endeavors that seek to
 identify molecules with optimized properties and to understand the
 factors governing molecular interactions. In particular, the
 discovery and optimization of new therapeutic and diagnostic drug
 molecules, traditionally a slow manual process, will be greatly
 accelerated by this technology.
 CT Amino Acid Sequence
 Biotechnology
 Chemistry, Organic
 Drug Design
 Molecular Sequence Data
 Oligonucleotides: GE, genetics
 Oligopeptides: CH, chemistry

*Oligopeptides: CS, chemical synthesis
 Oligopeptides: GE, Genetics
 CN 0 (Oligonucleotides); 0 (Oligopeptides)

L4 ANSWER 3 OF 5 MEDLINE
 AN 96050146 MEDLINE
 TI Strategies and recent technologies in drug discovery.
 AU Kubinyi H
 CS Drug Design, BASF, Ludwigshafen.
 SO PHARMAZIE, (1995 Oct) 50 (10) 647-62. Ref: 311
 Journal code: P4D. ISSN: 0031-7144.
 CY GERMANY: Germany, Federal Republic of
 DT Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 *** (REVIEW, ACADEMIC) ***

LA English
 FS Priority Journals
 EM 9603
 AB In the last years, the paradigms of drug research changed significantly. New technologies were developed, in several different fields. ***Combinatorial*** ***chemistry*** and high-throughput screening increase our chances to find new lead structures, with less effort than by dedicated syntheses. Gene technology, in addition to providing therapeutically useful proteins, significantly contributes to rational drug design. The primary structure of a protein can be derived from the DNA sequence of the corresponding gene. Its relevance for a certain disease is investigated in transgenic animals. Expression of the protein in bacteria or in cell culture produces material for screening systems and for 3D structure determination by protein crystallography. NMR techniques, or electron cryo-microscopy. Structure-based and computer-aided design methods are applied to optimize lead structures with the least effort. A serious problem in the application of such techniques is their limitation to ligand-protein interactions. For the design of a therapeutically useful drug, also absorption, distribution, metabolism and elimination have to be considered. QSAR methods help in this respect. Scope and limitations of the new technologies are discussed in the context of conventional approaches in drug discovery.

CT Check Tags: Animal; Human; Support, Non-U.S. Gov't
 Genetic Engineering
 *Pharmacology: TD, trends
 Research Design
 Technology, Pharmaceutical

L4 ANSWER 4 OF 5 MEDLINE
 AN 94176088 MEDLINE
 TI ***Combinatorial*** ***chemistry*** --applications of light-directed chemical synthesis.
 AU Jacobs J W; Fodor S P
 CS Affymax Research Institute, Palo Alto, CA 94304..
 SO TRENDS IN BIOTECHNOLOGY, (1994 Jan) 12 (1) 19-26. Ref: 29
 Journal code: ALJ. ISSN: 0167-7799.

CY ENGLAND: United Kingdom
 DT Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 *** (REVIEW, TUTORIAL) ***
 LA English
 FS B
 EM 9406
 AB Combinatorial methods in biology and chemistry are proving to be powerful methods for generating molecular diversity. One approach, light-directed chemical synthesis, combines semiconductor-based photolithography technologies with solid-phase organic chemistry to synthesize large arrays of molecules with potential biological activity. This novel technology has the potential to provide libraries of both natural and synthetic molecules that might be screened rapidly for biological activity.
 CT Amino Acid Sequence
 Base Sequence
 Biotechnology: MT, methods
 Carbamates: CH, chemistry
 Dynorphins: AA, analogs & derivatives
 Dynorphins: CH, chemistry
 Dynorphins: CS, chemical synthesis
 Dynorphins: GE, genetics
 DNA: GE, genetics
 Endorphins: CH, chemistry
 Endorphins: CS, chemical synthesis
 Endorphins: GE, genetics
 Molecular Sequence Data
 Oligonucleotides: CH, chemistry
 *Oligonucleotides: CS, chemical synthesis
 Oligonucleotides: GE, genetics
 Peptides: CH, chemistry
 *Peptides: CS, chemical synthesis
 Peptides: GE, genetics
 *Photochemistry: MT, methods
 RN 74913-18-1 (Dynorphins); 83335-41-5 (rimorphin); 9007-49-2 (DNA)
 CN 0 (Carbamates); 0 (Endorphins); 0 (Oligonucleotides); 0 (Peptides)
 L4 ANSWER 5 OF 5 MEDLINE
 AN 90058642 MEDLINE
 TI Polypeptide chain binding proteins: catalysts of protein folding and related processes in cells.
 AU Rothman J E
 CS Department of Biology, Princeton University, New Jersey 08544..
 SO CELL, (1989 Nov 17) 59 (4) 591-601. Ref: 102
 Journal code: CQ4. ISSN: 0092-8674.
 CY United States
 DT Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 *** (REVIEW, ACADEMIC) ***
 LA English
 FS Priority Journals; Cancer Journals
 EM 9003

AB Subcellular compartments in which folding and assembly of proteins occur seem to have a set of PCB proteins capable of mediating these and related processes, such as translocation across membranes. When a domain of a polypeptide chain emerges from a ribosome during synthesis or from the distal side of a membrane during translocation, successive segments of the chain are incrementally exposed to solvent and yet are unlikely to be able to fold. This topological restriction on folding likely mandates a need for PCB proteins to prevent aggregation. Catalysis of topologically restricted folding by PCB proteins is likely to involve both an antifolding activity that postpones folding until entire domains are available and, more speculatively, a folding activity resulting from a programmed stepwise release that employs the energy of ATP hydrolysis to ensure a favorable pathway. We are left with a new set of problems. How do proteins fold in cells? What are the sequences or structural signals that dictate folding pathways? The new challenge will be to understand folding as a ***combination*** of physical ***chemistry***, enzymology, and cell biology.

CT Check Tags: Animal

Antigens, Bacterial: ME, metabolism

*Heat-Shock Proteins: ME, metabolism

*Protein Conformation

CN 0 (Antigens, Bacterial); 0 (GroEL Protein); 0 (Heat-Shock Proteins)

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

2.80

2.95

STN INTERNATIONAL LOGOFF AT 21:49:19 ON 10 OCT 96

L3 ANSWER 1 OF 1 SCISEARCH COPYRIGHT 1996 ISI (R)
 AN 94:118410 SCISEARCH
 GA The Genuine Article (R) Number: MV090
 TI COMBINATORIAL CHEMISTRY - APPLICATIONS OF LIGHT-DIRECTED
 CHEMICAL SYNTHESIS
 AU JACOBS J W (Reprint); FODOR S P A
 CS AFFYMAX RES INST, 4001 MIRANDA AVE, PALO ALTO, CA, 94304 (Reprint);
 AFFYMETRIX, SANTA CLARA, CA, 95051
 CYA USA
 SO TRENDS IN BIOTECHNOLOGY, (JAN 1994) Vol. 12, No. 1, pp. 19-26.
 ISSN: 0167-9430.
 DT General Review; Journal
 FS AGRI
 LA ENGLISH
 REC Reference Count: 29
 AB Combinatorial methods in biology and chemistry are proving to be
 powerful methods for generating molecular diversity. One approach,
 light-directed chemical synthesis, combines semiconductor-based
 photolithography technologies with solid-phase organic chemistry to
 synthesize large arrays of molecules with potential biological
 activity. This novel technology has the potential to provide
 libraries of both natural and synthetic molecules that might be
 screened rapidly for biological activity.
 CC BIOTECHNOLOGY & APPLIED MICROBIOLOGY
 STP KeyWords Plus (R): DRUG DISCOVERY; LIGANDS; LIBRARY; MOLECULES
 RF 92-0799 007; ANTIBODY ENGINEERING; ANTIGEN COMBINING SITE;
 FILAMENTOUS PHAGE; PROTEIN TARGETS
 92-5823 001; B-CELL EPITOPES OF THE CHLAMYDIA-TRACHOMATIS MAJOR
 OUTER-MEMBRANE PROTEIN; PEPTIDE LIBRARIES; ANTIGENIC SITES;
 ANTIPEPTIDE ANTIBODIES

RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)
=====	+	=====	+	=====
BARRETT R W	1985	6	113	NEUROPEPTIDES
BIRNBAUM S	1992	3	49	CURR OPIN BIOTECH
BRENNER S	1992	89	5381	P NATL ACAD SCI USA
BUNIN B A	1992	114	10997	J AM CHEM SOC
CARUTHERS M H	1985	230	281	SCIENCE
CHO C Y	1993	261	1303	SCIENCE
CWIRLA S E	1990	87	6378	P NATL ACAD SCI USA
DEVLIN J J	1990	249	404	SCIENCE
DOWER W J	1992	2	251	CURR BIOL
ELLINGTON A D	1990	346	818	NATURE
FODOR S P A	1993	364	555	NATURE
FODOR S P A	1991	251	767	SCIENCE
FRANK R	1992	48	9217	TETRAHEDRON
FURKA A	1991	37	487	INT J PEPT PROT RES
GEYSEN H M	1984	81	3998	P NATL ACAD SCI USA
HOLMES C P	1993		489	PERSPECTIVES MED CHE
HOUGHTEN R A	1991	354	84	NATURE

KERR J M	1993	115	2529	J AM CHEM SOC
LAM K S	1991	354	82	NATURE
MERRIFIELD R B	1963	85	2149	J AM CHEM SOC
MERRIFIELD R B	1986	232	341	SCIENCE
NEEDELS M C	1993	90	10700	P NATL ACAD SCI USA
NIKOLAIEV V	1993	6	161	PEPTIDE RES
PAVIA M R	1993	3	387	BIOORG MED CHEM LETT
PEASE A C				IN PRESS P NATL ACAD
SCOTT J K	1990	249	386	SCIENCE
SIMON R J	1992	89	9367	P NATL ACAD SCI USA
TUERK C	1990	249	505	SCIENCE
WELLS J A	1992	2	597	CURR OPIN STRUC BIOL